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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ron Knox

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EXAMINER

TEIXEIRA MOFFAT, JONATHAN CHARLES

ART UNIT

PAPER NUMBER

2863

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DELIVERY MODE

04/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,193	Applicant(s) KNOX, RON	
	Examiner JONATHAN TEIXEIRA MOFFAT	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/22/06, 9/26/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it contains header and follower information. A clean copy of the abstract is requested. Correction is required. See MPEP § 608.01(b).

Further, applicant is reminded to include reference to all priority documents including PCT information in the first sentence of the specification.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “43” as in figure 6 is referred to as “48” on page 14 of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.

Claims 1-6, 8-16, 18-21 and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Krajewski (US pat pub 20010004842).

With respect to claim 1, Krajewski discloses a method comprising:

1) Conducting an upstream measurement of a flow rate (Fig 1 item 6) through the at least one sample inlet (Fig 1 item 3 and paragraph 0025). *The calibration state of the device with respect to its pump is certainly an operational condition. Further, since these devices are known to require constant and correct flow for accuracy (paragraph 0002) this relates directly to accuracy of the particle detector.*

With respect to claim 2, Krajewski discloses a method comprising:

1) Measuring the upstream flow rate through at least one sampling inlet of a particle detector system (Fig 1 item 6 and paragraph 0025).

2) Determining an operational condition of the pollution monitoring equipment in accordance with the measured flow rate (paragraph 0025 and Fig 2). *See comments with respect to claim 1 above.*

With respect to claims 3 and 13, Krajewski discloses repeating the step of measuring the upstream flow rate after a predetermined time interval (paragraphs 0011 and 0024-0025) and

Art Unit: 2863

determining the operational condition by comparing respective flow rate measurements (paragraphs 0011 and 0024-0025).

With respect to claim 4, Krajewski discloses that the predetermined time interval, comprises one or more of: the occurrence of a maintenance action (paragraph 0024); regular calendar periods (paragraph 0024). *In the first case, a first flow test is considered a maintenance action, therefore the second test is performed after said first maintenance action. In the second case the tests are performed subsequently according to the microprocessor's clock which is preprogrammed or scheduled.*

With respect to claim 5, Krajewski discloses that measuring the upstream flow rate, in the first instance, is performed upon one of: repair of the pollution monitoring equipment (paragraphs 0011 and 0024-0025). *The recalibration of the device can be considered to be a repair.*

With respect to claims 6, 11 and 19, Krajewski discloses that the pollution monitoring equipment comprises one or more of: at least one sampling inlet (Fig 1 item 3) of an aspirated particle detector system (paragraph 0017); a particle detector (Fig 1 item 2); a sampling pipe network of an aspirated particle detector system (Fig 1 items 3 and 7); a portion of a sampling pipe network of an aspirated particle detector system (Fig 1 items 3 and 7); an aspirated particle detector system (Fig 1 item 2 and paragraph 0017).

With respect to claim 8, Krajewski discloses that the step of measuring the flow rate is performed at a point remote from the sampling inlet, at or near ground level (Fig 1 item 6). *Applicant has provided no specific guidance for the interpretation of "remote" or "near" so examiner is forced to rely on the common definitions.*

Art Unit: 2863

With respect to claim 9, Krajewski discloses that the operational condition comprises one or more of: a) particle detection system sensitivity (paragraph 0002); b) particle detector sensitivity (paragraph 0002). *As stated, and as known in the art, constant flow is required for accuracy.*

With respect to claim 10, Krajewski discloses an apparatus comprising:

1) A flow sensor arrangement (Fig 1 item 6) adapted to form a sealed fluid communication path (Fig 1 item 4) between a flow sensor and a sampling inlet of the detector system (Fig 1 item 3), wherein the flow sensor determines the flow rate through the sampling inlet so as to allow a determination of an operating condition of the pollution monitoring equipment (paragraphs 0011 and 0025). *See comments with respect to claim 1 above.*

With respect to claim 12, Krajewski discloses an apparatus comprising:

1) A connector adapted to sealingly engage a sampling inlet of a particle detector system (Fig 1 item 4).

2) A sensing device comprising a flow sensor for conducting an upstream measurement of flow through the sampling inlet (Fig 1 item 6), wherein the sensing device is operatively connected to a flow data storage (Fig 1 item 1). *See comments with respect to claim 1 above.*

3) An extension means providing sealed fluid communication between the connector and sensing device such that a flow path is formed between the sensing device and the sampling inlet via the connector (Fig 1 item 3).

With respect to claim 14, Krajewski discloses an articulated connection intermediate the connector and extension means for providing relative movement between the connector and

Art Unit: 2863

extension means (Fig 1 items 4 and 3). *This is a simple pipe connection which can be twisted or slid apart or toward one another.*

With respect to claim 15, Krajewski discloses an articulated connection intermediate the sensing device and extension means for providing relative movement between the sensing device and extension means (Fig 1 items 4 and 3). *This is a simple pipe connection which can be twisted or slid apart or toward one another.*

With respect to claim 16, Krajewski discloses that the articulated connection comprises a flexible collar (Fig 1 items 3 and 4). *This duct or tube is certainly a "collar" since it slips around the other tube. Further it is "flexible" since it is capable of being bent or changed.*

With respect to claim 18, Krajewski discloses a method comprising:

- 1) Connecting a flow sensing apparatus to a sampling inlet of an air sampling system (Fig 1).
- 2) Measuring the air flow rate into the sampling inlet (paragraph 0025).
- 3) Comparing the measured air flow with a previously measured air flow at the time of commissioning the detector system (Fig 2 and paragraphs 0011 and 0024-0025).

With respect to claims 20-21 and 24-25, Krajewski discloses an apparatus (Fig 1) adapted to perform one of: a) determine an operational condition of a particle detection system (paragraphs 0011 and 0024-0025); b) test the operation of pollution monitoring equipment (paragraphs 0011 and 0024-0025); or c) field test a particle detector system (paragraphs 0011 and 0024-0025). *See above comments with respect to claim 1.*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.

In addition to the above anticipation of claims 1 and 10 by Krajewski, claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krajewski in view of Stark (US pat 6439062).

With respect to claims 7 and 17, Krajewski fails to disclose that measuring the flow rate is performed using an ultrasonic flow sensor.

Stark teaches, with respect to claims 7 and 17, that measuring of flow rate is performed using an ultrasonic flow sensor (column 1 lines 16-25 and column 8 lines 42-48).

It would have been obvious to one of ordinary skill in the art to modify the apparatus and method of Krajewski by utilizing an ultrasonic flow monitoring device as taught by Stark. Krajewski does not specify what sort of flow meter be used. One of ordinary skill in the art would logically have looked to the prior art for information concerning known devices which can perform this function, such as that of Stark. Ultrasonic flow meters are well known in the art of flow metering and thus would have been an obvious choice.

Art Unit: 2863

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN TEIXEIRA MOFFAT whose telephone number is (571)272-2255. The examiner can normally be reached on Mon-Fri, from 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/jtm/
JTM
4/8/2009

/Bryan Bui/
Primary Examiner, Art Unit 2863